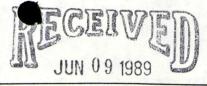


## m/021/004

## **Hecla Mining Company**



ESCALANTE UNIT

DIVISION OF OIL, GAS & MINING June 6,1989

Mr. John Torpy A & L Mid West Laboratories Inc. 13611 "B" Street Omaha, Nebraska 68144



Dear John.

I have recently talked with you about doing some samples on our tailings dam material. The Utah State Dept. of Oil, Gas and Mining have come to an agreement on the specifications and types of samples they are requiring of Hecla Mining Company for the Escalante Silver Mine tailing dam. They have also excepted your lab and your procedures as a acceptable testing facility for their requirements.

Enclosed you will find five samples; #1,#2,#3 are samples of the tailings dam material and #4 and #5 are samples of material which may be used to cover the dam. The samples are to be treated as separate samples (not composites) and tested for the following parameters:

- Examine the nutrient and physical properties of the material for organic matter, nitrate nitrogen. available phosphorus, exchangeable potassium, cation exchange capacity, electrical conductivity, texture. sodium absorption ratio, selenium (extractable), boron and saturation percentage of cations.
- b. Evaluate for acid-base potential.
- c. Total cyanide
- d. Total metals analysis for Aluminum, Arsenic, Barium, Cadmium, Chromium total, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Silver, Sulfur, Titanium, Zinc. The total metals should be analyzed using the ICAP Metals Screen procedures or HYD procedures.

I appreciate your help with this matter and your prompt reply with your lab testing procedures. If you have any questions as to what we need on the samples please contact me. Packing list and billing numbers are attached.

Thank you,

Tanny Harlin Environmentalist

cc: Holland Shepherd UDOGM